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Atty. Dkt. No. 033946-0301

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Zhu Yinghuai
Title: CARBORANE TRIANION
BASED CATALYST
Appl. No.: 10/668,850
Filing Date: 09/22/2003
Examiner: Unknown
Art Unit: 1713

CERTIFICATE OF MAILING

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Jan 20, 2005
(Date of Deposit)

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicant in order to comply with Applicant's duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicant does not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits.

RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicant respectfully requests that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

STATEMENT

The undersigned hereby states in accordance with 37 CFR §1.704(d) that each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in 37 CFR §1.56(c) more than thirty days prior to the filing of the information disclosure statement.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872.

Respectfully submitted,

Date

1/20/2005

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Registration No. 39,431

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Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/668,850
		Filing Date	09/22/2003
		First Named Inventor	Zhu Yinghuai
		Group Art Unit	1713
		Examiner Name	Unknown
Sheet 1 of 2	Attorney Docket Number	033946-0301	

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	A1	5483014A		Turner et al.	01-09-1996	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	A2	EP	0 638 593 A1		Shell Internationale Research Maatschappij B.V.	02-15-1995		
	A3	JP	07-070222		Idemitsu Kosan Co. Ltd.	03-14-1995		
	A4	WO	01/00691		Eastman Chemical Company	01-04-2001		
	A5	WO	01/16189 A1		Eastman Chemical Company	03-08-2001		
	A6	WO	00/75204 A1		Eastman Chemical Company	21-14-2000		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A7	Dodge et al., Titanium and zirconium Et ₂ C ₂ B ₄ H ₄ -Metal-Phosphine complexes: Synthesis, characterization, and ethylene polymerization activity." Journal of the American Chemical Society, 12:10573-10580, 2000	
	A8	Kim et al., Dicarbollide analogues of the constrained-geometry polymerization catalyst. Organometallics, 20: 4298-4300, 2001	
	A9	Wang et al., Reactions of L ₂ Zr(NMe ₂) ₂ with Me ₃ Al and PhC=CH: synthesis and structural characterization of new zirconium carborane complexes [L ₂ =Me ₂ Si(C ₉ H ₅)(C ₂ B ₁₀ H ₁₀) and Me ₂ C(C ₅ H ₄)(C ₂ B ₁₀ H ₁₀)]. Journal of Organometallic Chemistry, 683: 39-43, 2003	

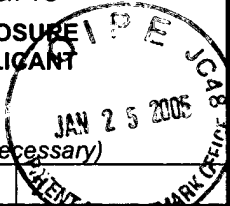
Examiner Signature	Date Considered
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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449B/PTO			Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (use as many sheets as necessary)			Application Number	10/668,850
			Filing Date	09/22/2003
			First Named Inventor	Zhu Yinghui
			Group Art Unit	1713
			Examiner Name	Unknown
			Attorney Docket Number	033946-0301
Sheet	2	of		

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ⁶
	A10	Wang et al., Synthesis, structural characterization, and olefin polymerization behavior of Group 4 metal complexes with constrained-geometry carborane ligands. Organometallics, 20: 5110-5118, 2001		
	A11	Wang et al., Multiple insertion of unsaturated molecules into the Zr-N bonds of [<i>n</i> ₅ -6-Me ₂ A(C ₉ H ₆)(C ₂ B ₁₀ H ₁₀)]Zr(Nme ₂) ₂ (A=C, Si). Organometallics, 22: 4522-4531, 2003.		
	A12	Zhu et al., "The first half-sandwich d ⁰ -metallacarboranes stabilized by metal-nitrogen sigma bond using C _(cage) -appended anionic alkylamido moiety: a synthetic investigation." Inorganic Chemistry Communications, 4:486-489, 2001.		
	A13	Zhu et al., "Synthesis and characterization of constrained-geometry half-sandwich sila- and germacarboranes derived from a trianionic C _(cage) -appended alkyloxo-C ₂ B ₉ -carborane ligand." Inorganic Chemistry Communications, 5: 296-299, 2002		
	A14	Zi et al., Synthesis, structural characterization, and catalytic property of Group 4 metal carborane compounds with a ¹ Pr ₂ NB-bridged constrained-geometry ligand. Organometallics, 21: 3850-3855, 2002		
	A15	International Search Report for International Application No. PCT/SG2004/000297		

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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